CHAPTER 3
TACTICAL MOVEMENT

Leaders move units tactically to prepare them for contact. Each movement technique and formation has unique advantages and disadvantages. Some offer security, but take longer; others offer speed, but less security. Each works better in certain types of terrain or tactical situations than it would in others. This chapter focuses on mechanized infantry rifle platoon and squad mounted and dismounted movement techniques, formations, and actions, and the platoon leader's options for moving the platoon tactically.

3-1. MOUNTED MOVEMENT FORMATIONS

The platoon leader uses formations for several purposes: to relate one vehicle or squad to another on the ground, to position firepower to support the direct-fire plan, to establish responsibilities for sector security among vehicles or squads, or to aid in the execution of battle drills and directed COAs. Just as they do with movement techniques, platoon leaders plan formations based on where they expect enemy contact and on the higher commander's plans to react to contact. The platoon leader evaluates the situation and decides which formation best suits the mission and situation.

a. **Choices**. The platoon need not use the same formation as the company team unless directed by the company commander. However, the platoon leader must coordinate his formation with other elements moving in the main body team's formation.

b. **Factors**. Sometimes, platoon and company team formations differ due to METT-TC factors. For example, the platoons could move in wedge formations within a company team vee.

(1) In planning and executing movement, leaders must consider the fluidity of formations. Spacing requirements, as well as other METT-TC considerations, require the platoon to adapt basic formations. Leaders must stay ready to adjust the distance of individual vehicles based on terrain, visibility, and mission requirements.

(2) The platoon usually moves in formation when using traveling or traveling overwatch. When it uses bounding overwatch, the bounding element makes the best use of the terrain, rather than adopting a precise formation. Only in this way can it move effectively while maintaining adequate security.

NOTE: This chapter includes example formations only. These examples do not take into account terrain and other METT-TC factors, even though METT-TC factors play the most crucial role in selecting and executing a formation. Leaders must plan to adapt their choice of formation to the specific situation.

c. **Mounted Formations**. When mounted, the platoon uses the column, wedge, line, echelon, coil, and herringbone formations (based on METT-TC factors).

(1) ***Column Formation***. The platoon uses the column when moving fast, when moving through restricted terrain on a specific route, or when it does not expect enemy contact. Each vehicle normally follows directly behind the vehicle in front of it. However, if the situation dictates, vehicles can disperse laterally to enhance security. This

is sometimes referred to as a staggered column. Figure 3-1 shows this type of column movement. The column formation has the following characteristics, advantages, and limitations:

- Control—Easy.
- Fires:
  - Front and rear—Limited.
  - Flank—Excellent.
- Security—Limited, overall.

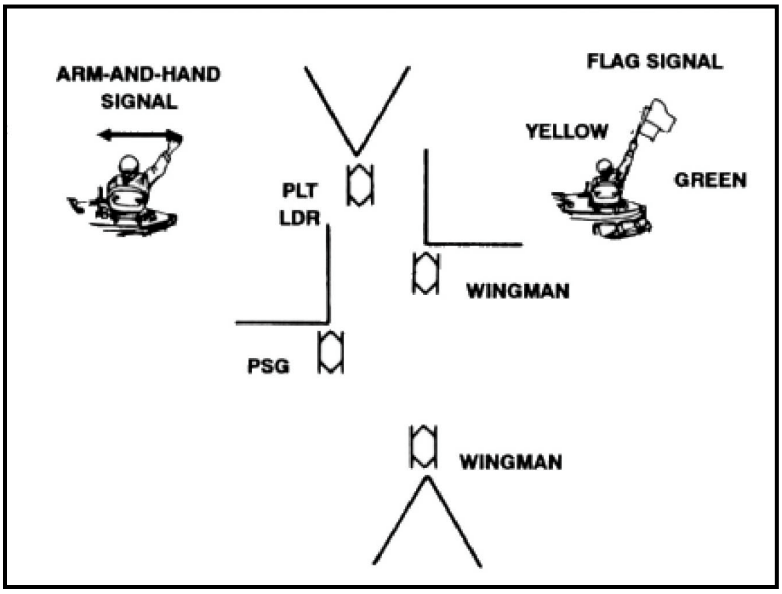

Figure 3-1. Column formation with dispersal for added security (staggered column).

(2) ***Wedge Formation***. When the enemy situation seems unclear or when contact might occur, leaders often use the wedge formation shown in Figure 3-2. Both the platoon leader and platoon sergeant stay in the center of the formation, with their wingmen located to the rear of and outside of them. The wedge has the following characteristics, advantages, and limitations:

- Control—Easy.
- Fires:
  - Front—Excellent.
  - Flanks—Good.
- Security—Good, to flanks.

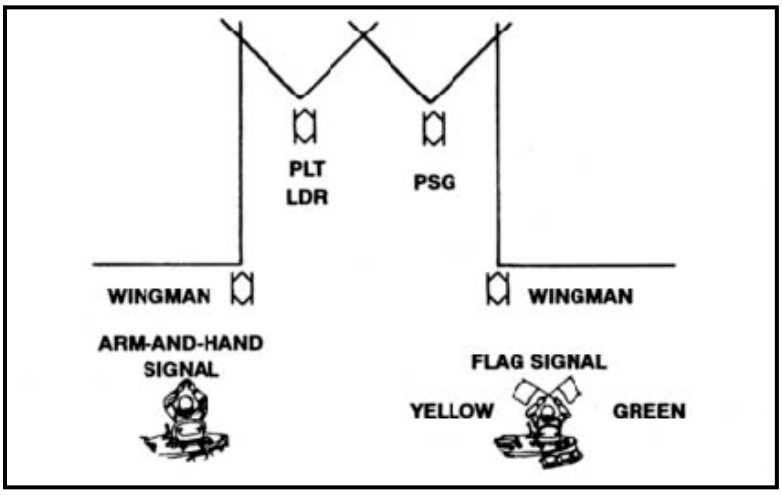

Figure 3-2. Wedge formation.

(3) ***Line Formation***. When assaulting a weakly defended objective, crossing open areas, or occupying a support-by-fire position, the platoon mainly uses the line formation (Figure 3-3). The platoon can use the line formation in the assault to maximize the platoon's firepower and shock effect. The platoon normally uses the line formation when no terrain remains between it and the enemy, when the platoon has suppressed the enemy's antitank weapons, or when the platoon is vulnerable to artillery fire and must move fast. The line formation has the following characteristics, advantages, and limitations:

- Control—Difficult.
- Fires:
  - Front and rear—Excellent (maximum firepower).
  - Flank—Poor.
- Security—Less than other formations due to lack of depth.

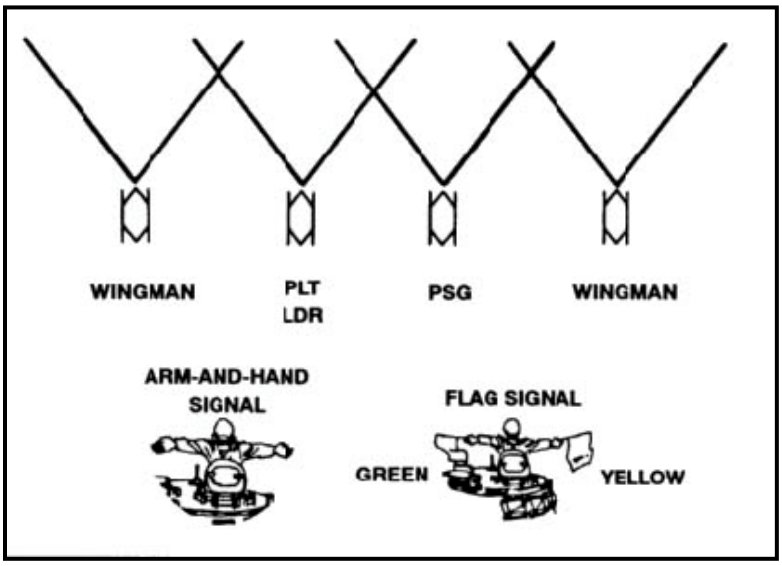

Figure 3-3. Line formation.

(4) ***Echelon Formation***. When the company team wants to maintain security or observation of one flank, and when the platoon does not expect enemy contact, the platoon uses the echelon formation (Figure 3-4). The echelon formation covers the exposed flank of a larger force well, and has the following characteristics, advantages, and limitations:

- Control—Difficult.
- Fires:
  - Front—Excellent.
  - Flanks—Excellent for echelon sides.
- Security—Good, for echelon sides of higher formation.

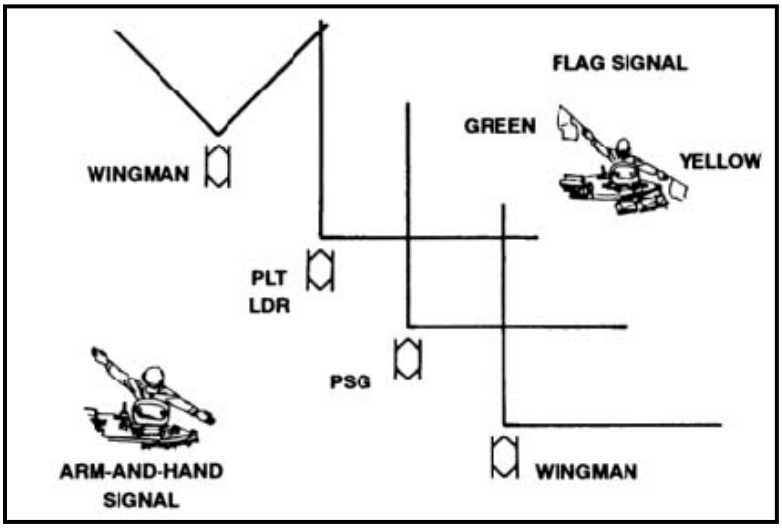

Figure 3-4. Echelon right formation.

(5) ***Coil and Herringbone Formations***. The coil and herringbone are platoon-level formations employed when elements of the company team are stationary and must maintain 360-degree security.

(a) *Coil*. The coil (Figure 3-5) is used to provide all-round security and observation when the platoon is stationary. It is also useful for tactical refueling, resupply, and issuing platoon orders. Security is posted to include air guards and dismounted fire teams. The vehicle turrets are manned.

(b) *Herringbone*. The platoon uses the herringbone to disperse when traveling in column formation (Figure 3-6). They can use it during air attacks or when they must stop during movement. It lets them move to covered and concealed positions off a road or from an open area and set up all-round security without detailed instructions. They reposition the vehicles as needed to take advantage of the best cover, concealment, and fields of fire. Fire team members dismount and establish security.

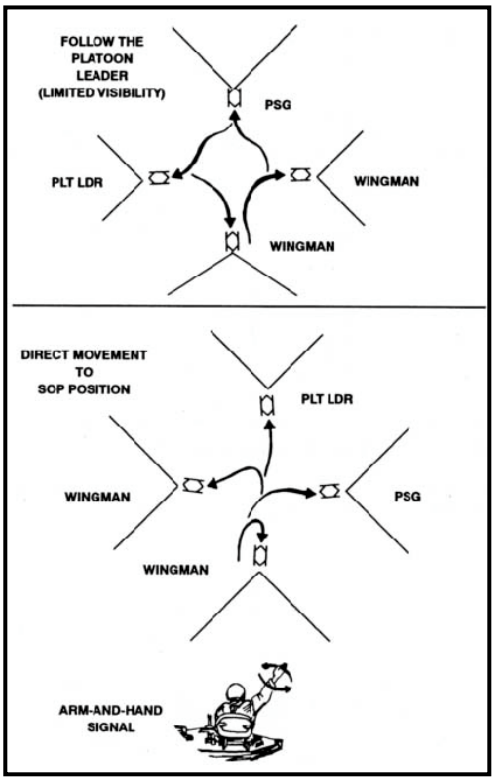

Figure 3-5. Coil formation.

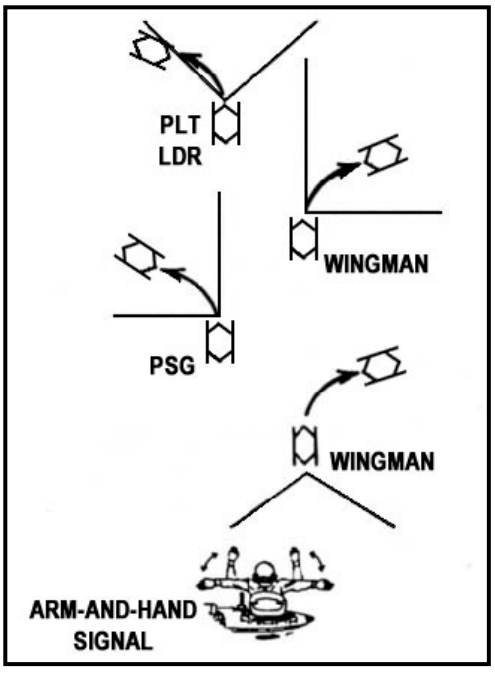

Figure 3-6. Herringbone formation.

3-2. DISMOUNTED MOVEMENT FORMATIONS

Infantry squads normally move mounted until the situation requires them to dismount. The squad moves alone or as part of the platoon's dismounted element. Either the platoon's mounted element or other fire teams from the dismounted element overwatch the rifle squad's movement. Rifle squads use a variety of formations:

a. **Fire Team Formations**. The term "fire team formation" refers to the soldiers' relative positions within the fire team (Table 3-1). Each type of formation has advantages and disadvantages. The leader weighs these against his METT-TC analysis:

MOVEMENT FORMATION	WHEN MOST OFTEN USED	CHARACTERISTICS			
		CONTROL	FLEXIBILITY	FIRE CAPABILITIES AND RESTRICTIONS	SECURITY
FIRE TEAM WEDGE	Basic fire team formation	Easy	Good	Allows immediate fires in all directions	All-round
FIRE TEAM FILE	Close terrain, dense vegetation, limited visibility conditions	Easiest	Less flexible than wedge	Allows immediate fires to the flanks, masks most fires to the rear	Least

Table 3-1. Comparison of fire team formations.

(1) ***Wedge Formation***. This is the fire team's basic formation. The wedge expands and contracts to take advantage of the terrain. When rough terrain, limited visibility, or other factors make control difficult, the fire team modifies the wedge. Team members reduce the normal intervals so that all team members can still see their team leader, and so each team leader can still see his squad leader. The sides of the wedge can contract to the point that the wedge resembles a single file. In less rugged terrain, where the leader can control movement more easily, soldiers expand or resume their original positions. Figure 3-7 shows the fire team wedge.

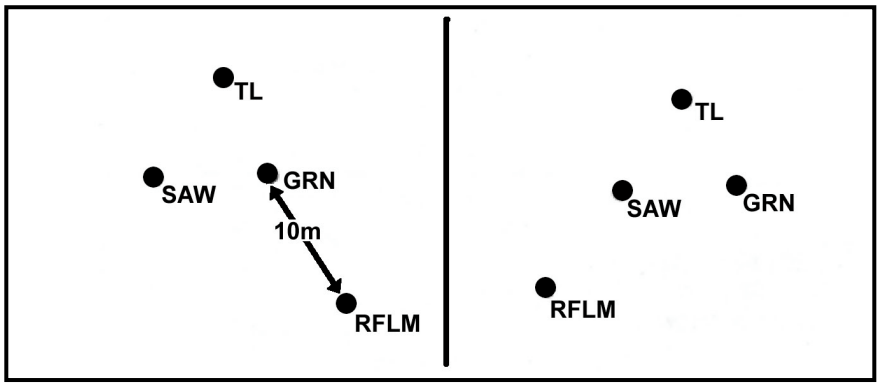

Figure 3-7. Fire team wedge.

(2) ***File Formation***. When the terrain precludes use of the wedge, fire teams use the file formation (Figure 3-8).

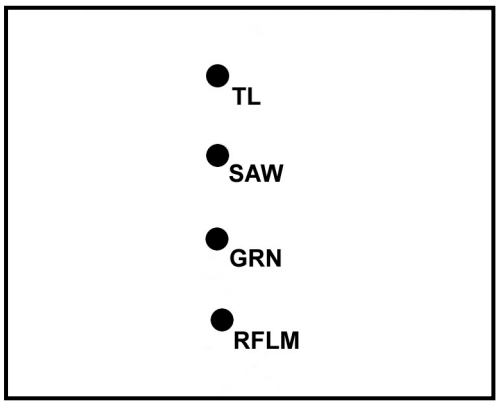

Figure 3-8. Fire team file.

b. **Squad Formations**. The term "squad formation" refers to the relative locations of the fire teams. Squad formations include the squad column, the squad line, and the squad file. Table 3-2 compares squad formations.

MOVEMENT FORMATION	WHEN MOST OFTEN USED	CHARACTERISTICS			
		CONTROL	FLEXIBILITY	FIRE CAPABILITIES AND RESTRICTIONS	SECURITY
SQUAD COLUMN	The main squad formation	Good	Aids maneuver, good dispersion laterally and in depth	Allows large volume of fire to the flanks, but only limited volume to the front	All-round
SQUAD LINE	For maximum firepower to the front	Not as good as squad column	Limited man-ever capability (both fire teams com-matted)	Allows maximum immediate fire to the front	Good to the front, little to the flank and rear
SQUAD FILE	Close terrain, dense vegetation, limited visibility conditions	Easiest	Most difficult formation to maneuver from	Allows immediate fire to the flanks, masks most fire to the front and rear	Least

Table 3-2. Comparison of squad formations.

(1) ***Squad Column***. The squad column is the squad's main formation. It simplifies maneuver, and it provides good dispersion laterally and in depth without sacrificing control. The lead fire team serves as the base fire team. Squads move either in a column or modified wedge. Rough terrain, limited visibility, or other factors might cause the squad to modify the wedge into a file for control purposes. As the terrain becomes less rugged and control becomes easier, the soldiers assume their original positions (Figure 3-9, page 3-8).

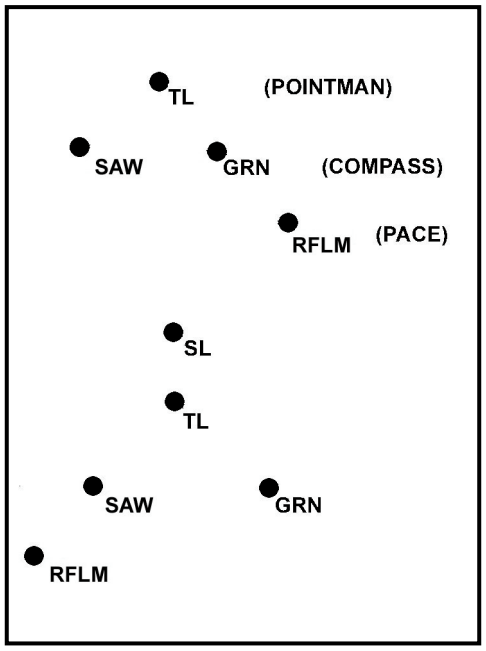

Figure 3-9. Squad column with fire teams in wedge.

(2) ***Squad Line***. The squad line (Figure 3-10) provides maximum firepower to the front. When a squad acts as the base squad, the fire team on the right serves as the base fire team.

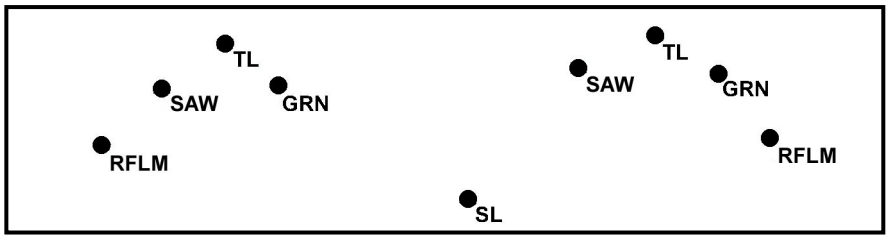

Figure 3-10. Squad line.

(3) ***Squad File***. When not traveling in a column or line, squads travel in file (Figure 3-11). The squad file has the same characteristics as the fire team file. The squad leader moves forward to the first or second position if he wants to increase control over the formation, exert greater morale presence by leading from the front, and remain available to make key decisions at once. For more control over the rear of the formation, he moves a team leader to the last position. Platoon leaders and BCs have numerous ways to control the platoon's formations. To enhance awareness, they may have the rifle squads give position updates at regular intervals. When the platoon moves at normal dispersion intervals, the leader uses voice communications and visual contact to control movement.

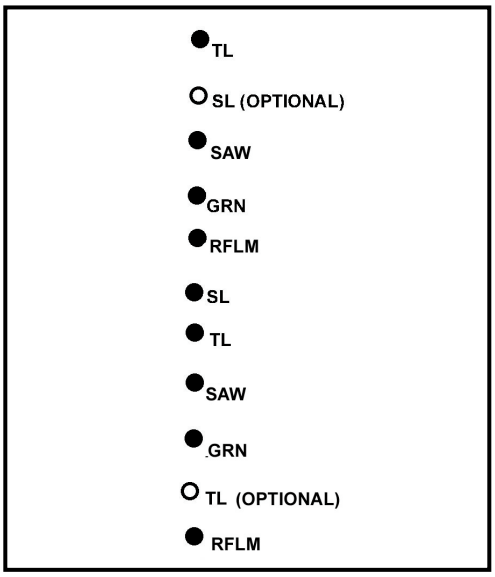

Figure 3-11. Squad file.

c. **Platoon Formation.** The platoon leader also tracks his platoon's formation and movement in conjunction with the company's formation.

3-3. MOVEMENT TECHNIQUES

The term "movement techniques" does not refer to the movement of fixed formations—it refers to the fluctuating distances *between* soldiers, teams, and squads. These distances vary based on the factors of METT-TC. As the probability of enemy contact increases, the platoon leader adjusts the movement technique to provide greater security. For example, if an enemy update received from higher headquarters states that the enemy has moved much closer to the platoon than the platoon leader anticipated, he immediately switches the platoon from traveling overwatch to bounding overwatch.

a. **Traveling (Mounted)**. The platoon travels mounted when contact with the enemy is not likely and speed is desired (Figure 3-12, page 3-10). The leader analyzes the latest information on the enemy and determines if contact with the enemy is unlikely. Because units generally move faster when traveling mounted, leaders must remember the increased potential for a break in contact. This means more to the nondigitized platoon than it does to the digitized platoon. Should a break in contact occur:

(1) The leader or detached element uses GPS aids to reestablish contact with the main body.

(2) The platoon's main body can use an infrared or thermal source to regain visual contact with the element and link it back to the main body.

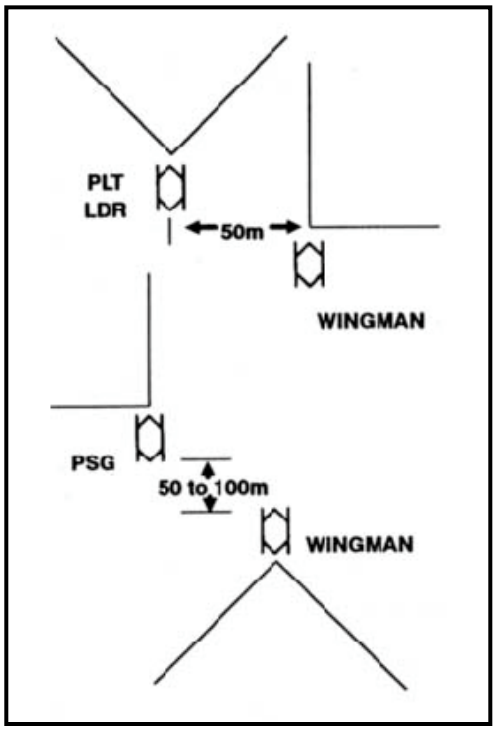

Figure 3-12. Traveling, platoon mounted.

b. **Traveling Overwatch (Mounted)**. The platoon leader uses traveling overwatch when he thinks contact could occur (Figure 3-13). He designates one of his subordinate elements to provide security forward of the main body. In some cases, the improved awareness might prompt the security element to increase these distances. Leaders track the movement of forward security elements.. They get position updates to ensure the forward security element remains on azimuth and within range of supporting direct fires.

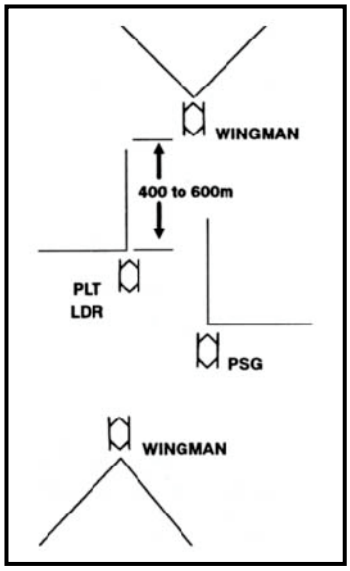

Figure 3-13. Traveling overwatch.

c. **Bounding Overwatch (Mounted)**. When the platoon leader expects enemy contact, he uses bounding overwatch (Figure 3-14). He initiates it based on planning information received earlier about the enemy situation and on SITREPs received during movement. He bounds elements using successive or alternate bounds (Figures 3-15).

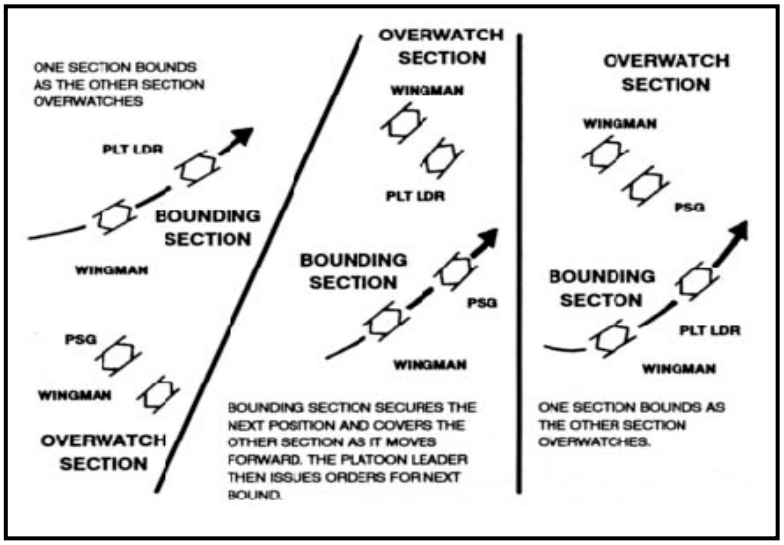

Figure 3-14. Bounding overwatch.

(1) Before bounding, the leader shows the bounding element the location of the next overwatch position. Ideally, the overwatch element keeps the bounding element in sight.

(2) Once the bounding element reaches its overwatch position, it signals "READY" by voice or visual means to the element that overwatched its bound. The platoon leader makes sure the bounding element stays within two-thirds of the weapons range of the overwatch element.

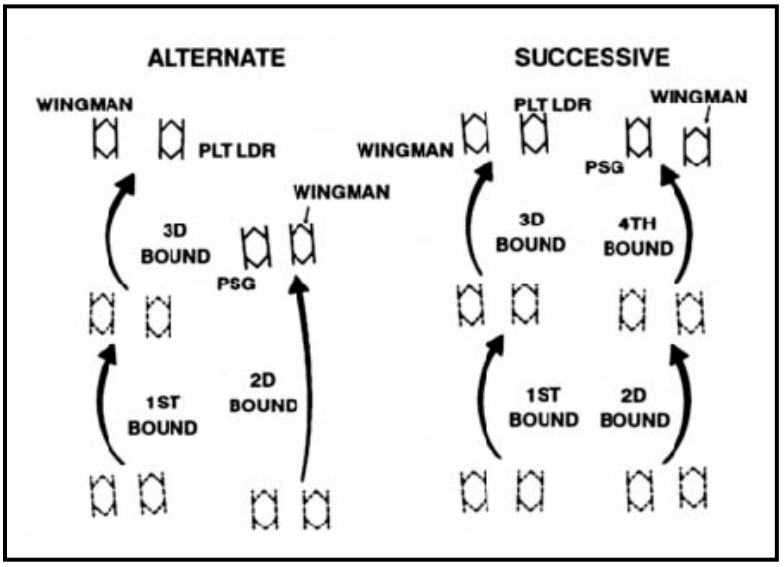

Figure 3-15. Methods of bounding overwatch.

d. **Traveling (Dismounted)**. Some platoon missions may require that rifle squads to operate independently of the BFVs. The trailing rifle squad in a formation may use the traveling technique (Figure 3-16). The element's formation adjusts to fit the situation.

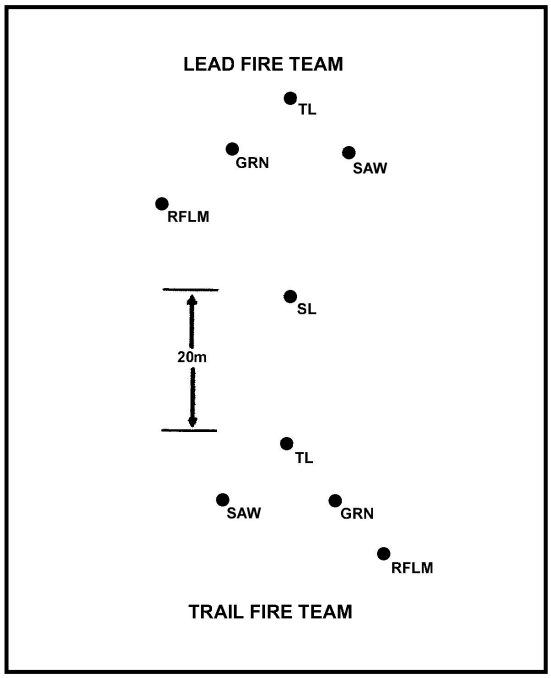

Figure 3-16. Traveling, squad dismounted.

e. **Traveling Overwatch (Dismounted)**. Rifle squads normally move in column or wedge formation (Figure 3-17). Ideally, the lead team moves at least 50 meters in front of the rest of the element.

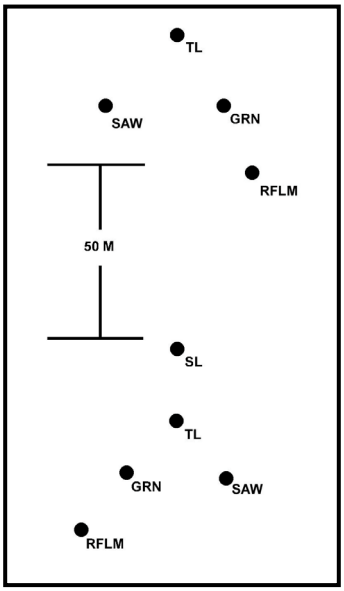

Figure 3-17. Traveling overwatch, squads dismounted.

f. **Bounding Overwatch (Dismounted)**. When the platoon leader expects contact and the terrain prohibits mounted movement, or when the rifle squads move separated from the vehicles, the platoon (-) bounds with the rifle squads deployed.

3-4. ACTIONS AT DANGER AREAS

When analyzing the terrain during the troop-leading procedures (during his METT-TC analysis), the platoon leader may identify "danger areas." When planning the route, the platoon leader marks the danger areas on his digital concept sketch and overlay. The term "danger area" refers to any area on the route where the terrain would expose the platoon to enemy observation, fire, or both. Examples include large open areas, roads and trails, and bridges or crossing sites over water obstacles. If he can, the platoon leader plans avoid danger areas, but sometimes he cannot. Navigational aids help, but when using them, the platoon and squads should always know their own location. Naturally, when the unit must cross a danger area, it does so as quickly and carefully as possible. During planning, the leader designates near side and far side rally points. If the platoon encounters an unexpected danger area, it uses the en route rally points closest to the danger area as far side and near side rally points.

a. **Crossing Large Open Areas (Mounted)**. If time and terrain permit, the platoon should dismount infantry to reconnoiter the movement route and secure the far side of the open area. However, the distances between covered and concealed positions may make the use of dismounted infantry impractical. If time constraints prevent the platoon from bypassing a large open area, then the platoon uses a combination of traveling overwatch and bounding overwatch to cross the open area. When the platoon has to move across large open areas with limited cover and concealment, the platoon leader should consider the factors of METT-TC before firing indirect or direct fire while the platoon moves. Also, indirect-fire weapons can provide concealment by firing smoke alone or mixed with suppressive fires.

(1) ***Traveling Overwatch***. The lead element moves continuously along the covered and concealed routes that give it the best available protection from possible threat observation and direct fire (Figure 3-18, page 3-14). The trail element moves at variable speeds, providing continuous overwatch, keeping contact with the lead element, and stopping periodically to get a better look. The trail element stays close enough to provide immediate suppressive fire and to maneuver for support. However, it must stay far enough to the rear to retain freedom of maneuver, in case an enemy force engages the lead element.

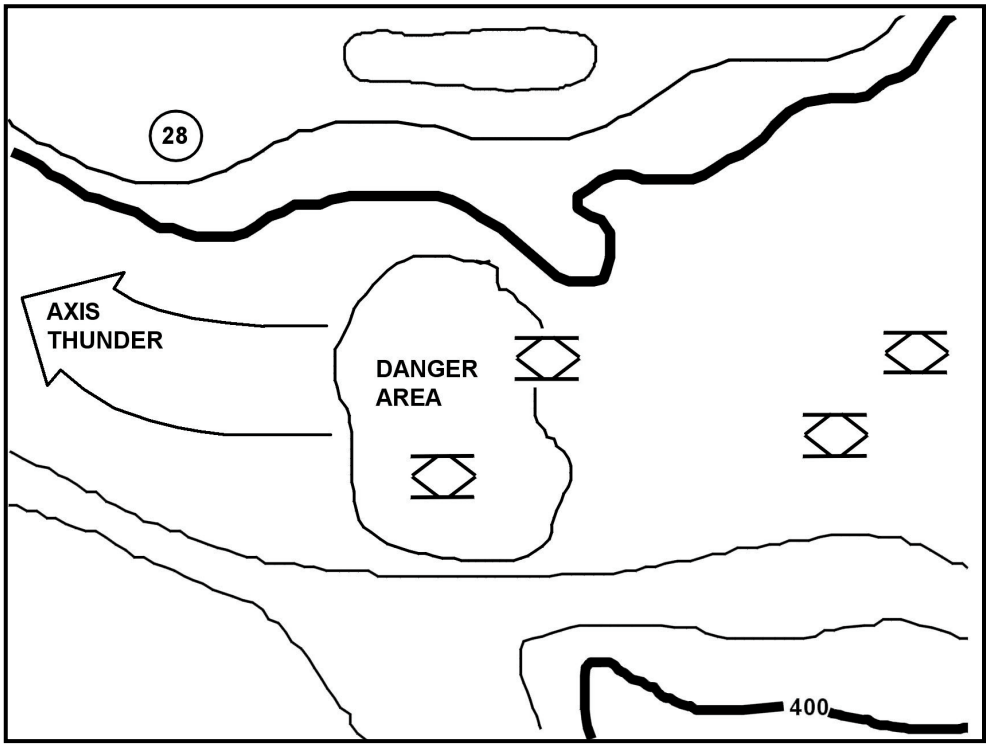

Figure 3-18. Crossing large open areas mounted (traveling overwatch).

(2) ***Bounding Overwatch***. When expecting contact, the platoon should use the slowest, most secure movement technique (Figure 3-19). If any threat force engages the bounding element with direct fire, the platoon can suppress it at once with its own direct fire. With bounding overwatch, one element is always stopped to provide overwatching fire. First, the trail element occupies a covered and concealed position where it can overwatch the lead element. As soon as the lead element completes its bound (movement), it occupies a similar position and becomes the overwatch element. It overwatches while the new trail element (formerly the overwatch element) bounds forward to the next overwatch position. The platoon uses the folds in the earth and any other concealment to mask its movement. The platoon can execute a bounding overwatch using one of the methods discussed earlier in this chapter.

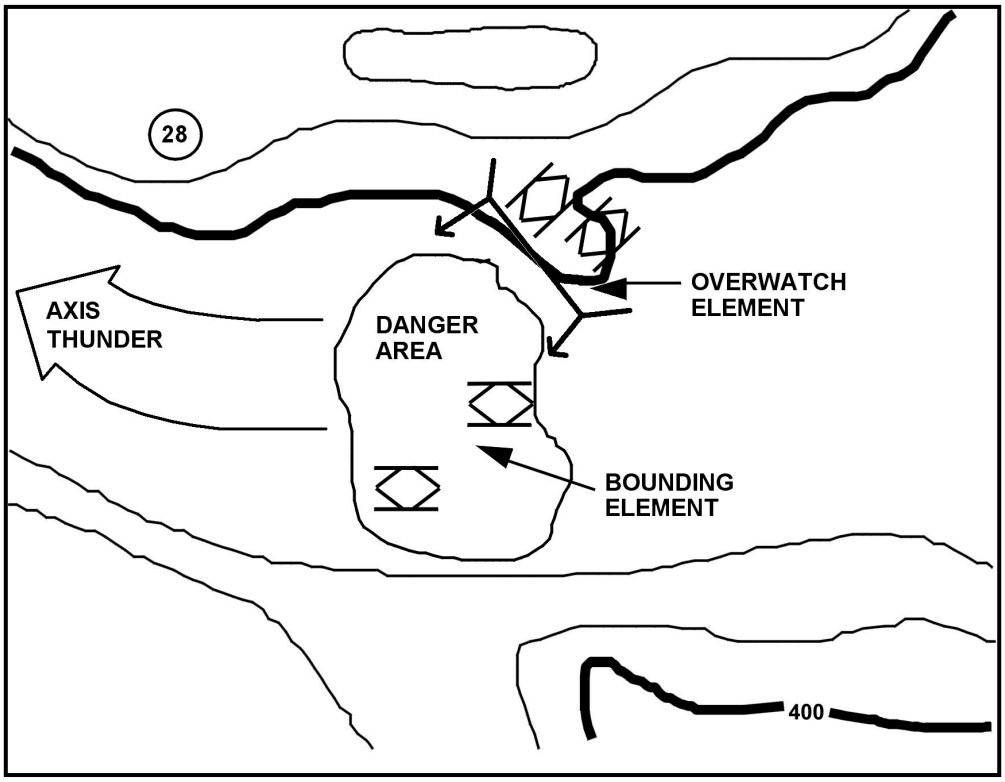

Figure 3-19. Crossing large open areas mounted (bounding overwatch).

b. **Crossing Large Open Areas (Dismounted)**. When the platoon lacks the time to bypass a large open area, it uses a combination of traveling overwatch and bounding overwatch (Figure 3-20, page 3-16). It uses traveling overwatch when it needs to save time. Wherever the platoon expects possible contact, or after the squad or platoon moves within small-arms range of the far side (within about 250 meters of it), the platoon uses bounding overwatch. Once past the open area, the squad or platoon reforms and continues the mission.

(1) ***Far-Side Rally Point***. The squad bounds by fire teams into the wood line and clear an area large enough for the entire squad. The squad begins bounding overwatch when within effective small-arms range (about 250 meters).

(2) ***Near-Side Rally Point***. The platoon should use the traveling overwatch formation. The platoon should not clear the rally point like a separate linear danger area. Teams and individuals increase the interval between them.

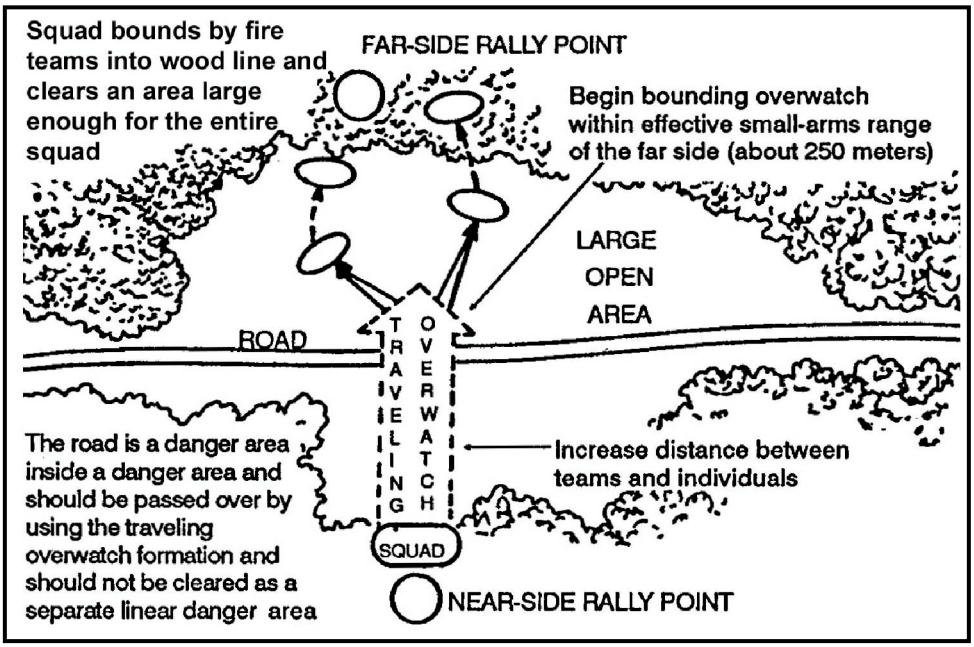

Figure 3-20. Crossing large open area.

c. **Crossing Small Open Areas (Dismounted)**. When crossing an open area small enough to bypass in the time allowed for the mission, the platoon uses one of two techniques (Figure 3-21).

(1) ***Detour Bypass Method.*** The squad or platoon turns 90 degrees to the right or left around the open area and continues to move until it reaches the far side. Then, it continues the mission. The distance of the planned route does not include the pace count of the offset and return legs.

(2) ***Contouring Around the Open Area***. Using the movement azimuth, the leader designates a rally point on the far side, decides which side of the open area to contour around (after considering the distance, terrain, and cover and concealment), and moves around the open area. He uses the wood line and vegetation for cover and concealment. When the squad or platoon arrives at the rally point on the far side, the leader aligns himself with the azimuth to the objective area, then continues the mission.

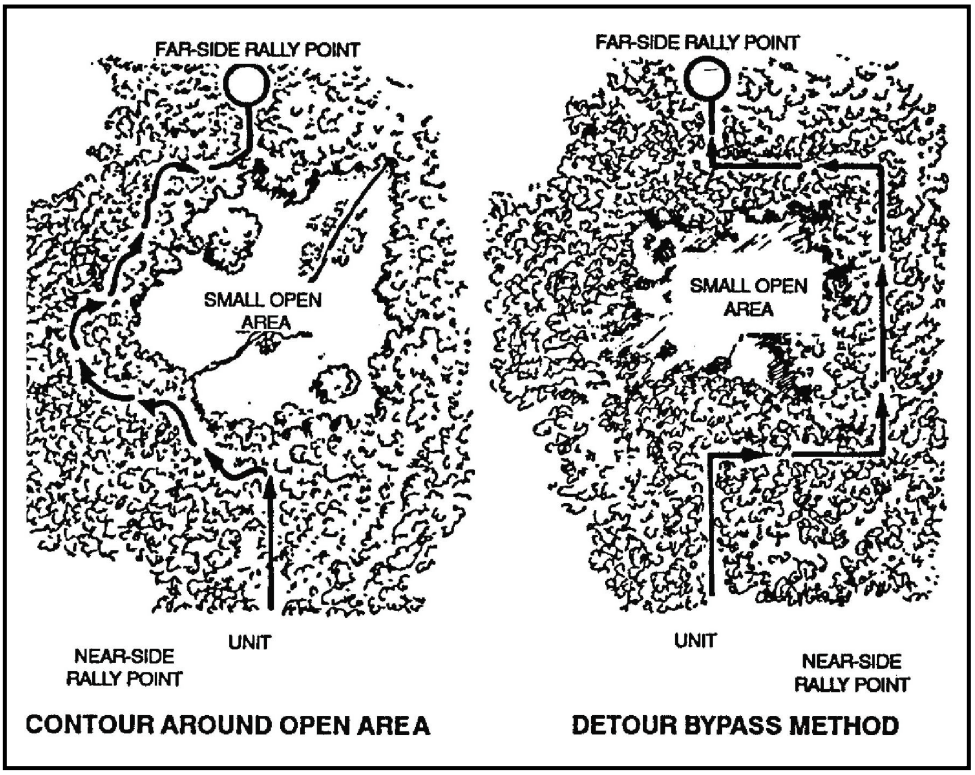

Figure 3-21. Crossing a small open area.

d. **Crossing Linear Danger Area (Dismounted)**. The platoon crosses a linear danger area in the formation and location specified by the platoon leader (Figure 3-22, page 3-18). When the lead team signals "danger area" (relayed throughout the platoon, the platoon halts. The platoon leader quickly moves forward, confirms the danger area, and determines what technique the platoon will use to cross. The platoon sergeant (or designated NCO, if the platoon sergeant remains with the BFVs) also moves forward to the platoon leader.

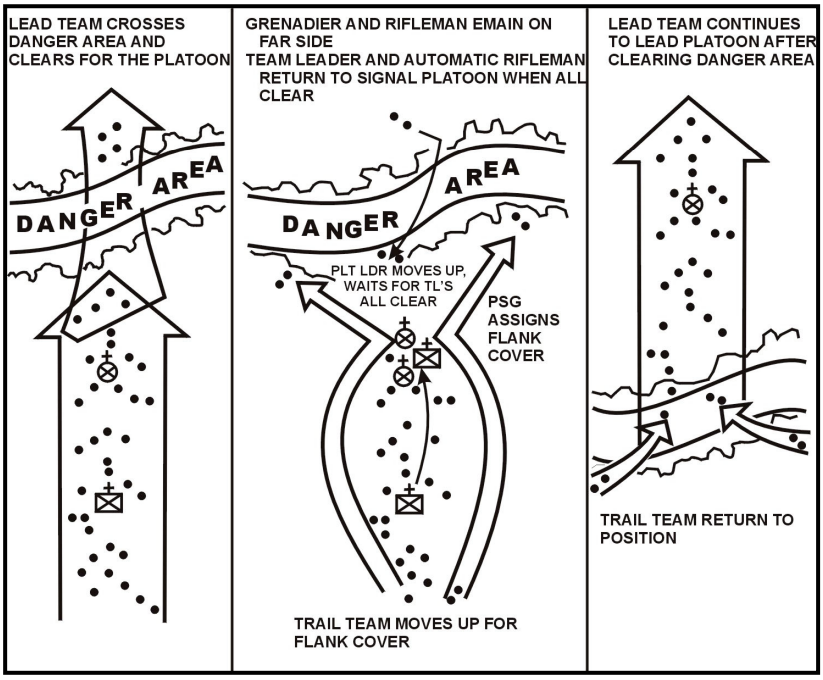

Figure 3-22. Crossing a linear danger area.

(1) The platoon leader informs all of the squad leaders of the situation and identifies the near-side and far-side rally points. He reconnoiters the danger area and selects the crossing point that provides the best available cover and concealment.

(2) The platoon sergeant directs positioning of the near-side security (usually conducted by the trail rifle squad). The near-side security element observes the flanks and overwatches the crossing. When the near-side security element is in position, the platoon leader directs he far-side security element (a fire team from the lead squad) to cross the danger area.

(3) The far-side security element clears the far side. The far-side security element leader establishes an OP forward of the cleared area. The cleared area must be large enough to allow full deployment of the remainder of the platoon. The team leader signals his squad leader that the far side is clear. The squad leader relays this message to the platoon leader

(4) The platoon leader selects the method for the remainder of the platoon use to cross the linear danger area. Once the platoon crosses the linear danger area, the main body begins moving slowly on the designated azimuth. The near-side security, controlled by the platoon sergeant, crosses the linear danger area where the platoon crossed. The platoon sergeant ensures that everyone in the platoon has crossed and sends a report to the platoon leader.

(5) The platoon leader ensures accountability and resumes movement at normal speed.

e. **Making Enemy Contact at Danger Areas**. An increased awareness of the situation helps the platoon leader control the platoon when it makes contact with the enemy. If the platoon makes contact in or near the danger area, it moves to the designated rally points. Based on the direction of enemy contact, the leader still designates the far- or

near-side rally point. During limited visibility, he can also use his AN/PAQ-4B/C or AN/PEQ-2A to point out the rally points at a distance. If the platoon has a hard time linking up at the rally point, then the first element to arrive should mark the rally point with an infrared light source. This will help direct the rest of the platoon to the location. In an M2A3-equipped unit, he uses the rally point graphic control measure in the CTD, and then sends the data to his BCs and squad leaders. During movement to the rally point, position updates allow separated elements to identify each other's locations. These updates help them link up at the rally point by identifying friends and foes.

3-5. SECURITY DURING MOVEMENT

Security during movement includes whatever the platoon, vehicle crews, or squads do to secure the unit or the larger force. The leader obtains information about his location, the tactical situation, and the enemy. However, nothing replaces a head out of the turret, scanning the terrain, and looking for the enemy.

a. **Terrain**. When planning movements, the leader must consider how terrain affects security. The company commander should receive a copy of the modified combined obstacle overlay (MCOO) of the AO from battalion task force. The platoon leader may ask the company team commander for a copy of the MCOO for his AO. Once he receives this, he uses it and the commander's results of terrain analysis to analyze the terrain to find the best covered and concealed route for his mission. At the same time, he considers the other factors of METT-TC.

b. **Formations and Movement Techniques**. When choosing a movement formation or technique, the leader considers the most recent situational update and the level of C2 needed for the mission. He chooses the option that will provide the greatest security, and that will most likely result in mission accomplishment. During individual platoon movement, the platoon leader places a small element forward to allow the platoon to make contact with the smallest element possible. This gives the rest of the platoon freedom to maneuver.

c. **Light Discipline**. If soldiers need more illumination than an image intensifier can provide in infrared mode during dismounted movement, they should also use other infrared light sources. The combination should provide the light needed, but with the least risk of enemy detection. When using infrared light, leaders must consider the enemy's night vision and infrared capabilities. For instance, an enemy with night vision capability can send infrared light signals plus, when the platoon uses infrared, the enemy can concentrate direct and indirect fire on it.

3-6. MANEUVER

Maneuver provides the foundation for battlefield employment. The term "maneuver" means "…the use of movement in combination with fire (or fire potential) employed to achieve a position of advantage with respect to the enemy, and to facilitate accomplishment of the mission." At the platoon level, maneuver forms the heart of every tactical operation and task. The platoon leader maneuvers his mounted element and rifle squads to close with, gain positional advantage over, and ultimately destroy the enemy.

a. **Base-of-Fire Element**. Combining fire and movement requires a base of fire. Some platoon elements remain stationary to provide protection for bounding elements by suppressing or destroying enemy elements.

(1) When possible, the base-of-fire element occupies positions that afford good cover and concealment, a clear view, and clear fields of fire. Once in position, the base-of-fire element suppresses known, likely, or suspected enemy elements and at the same time aggressively scans its assigned sectors. It also identifies previously unknown elements, and then suppresses them with direct and indirect fires. The base-of-fire element allows the bounding unit to keep maneuvering so it can retain the initiative, even when the enemy can see and fire on it.

(2) Because maneuver is decentralized in nature, the platoon leader determines from his terrain analysis where and when he wants to establish a base of fire. During actions on contact, he adjusts maneuver plans as needed. Making maneuver decisions normally falls to the leader on a specific part of the battlefield—the one who knows what enemy elements can engage the maneuvering element and what friendly forces can provide the base of fire. Within a platoon, a section would provide a base of fire. Within a section, an individual vehicle or squad would do so.

b. **Bounding Element**. Maneuver is inherently dangerous. Enemy weapons, unknown terrain, and other operational factors all increase the danger. When maneuvering, the platoon leader considers the following.

(1) The bounding element must take full advantage of whatever cover and concealment the terrain offers. By enforcing and applying the principles of terrain driving, leaders and drivers, respectively, can enhance security. For example, they should always use intervening terrain and avoid "skylining."

(2) All crews involved in the maneuver must always maintain all-round security at all times. Crewmen in the bounding element must continuously scan their assigned sectors of observation.

(3) Factors of METT-TC dictate the length of the bounds. However, the bounding element should never move beyond the range at which the base-of-fire element can effectively suppress known, likely, or suspected enemy positions (2/3 the effective range of the weapon system). Taking this precaution lessens the bounding element's exposure to enemy fires.

(4) In severely restricted terrain, the bounding element makes shorter bounds than it would in more open areas.

(5) To clear intervening gaps or dead spaces, the bounding element may have to dismount infantry squads or teams. Although doing so usually forces the element to make a tactical pause, it will slow the operation less than losing a vehicle and crew to a hidden threat element.

(6) The bounding element must focus on its ultimate goal—gaining a positional advantage. Once achieved, the element uses this advantage to destroy the enemy with direct fires and dismounted infantry assault.

c. **Relationship of Tactical Movement and Actions on Contact**. The purpose of tactical movement is to move units on the battlefield to prepare them for contact with the enemy. The process they use to evolve from tactical movement to maneuver, if unplanned, is "actions on contact." (Refer to Chapter 4, Section IV.)